Brushing Away Pathogens: An Oral Care Initiative to Tackle NV-HAP

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Brushing Away Pathogens: An Oral Care Initiative to Tackle NV-HAP

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BACKGROUND/EVIDENCE SUPPORT

- Through the Evidence-Based Practice Council, it was discovered Swedish Medical Center (SMC) did not have a standard for oral care in the adult, non-ventilated patient.
- Proper oral care can reduce the risk of NV-HAP (Non Ventilator-Hospital Acquired Pneumonia) by 40-60%.
- In the absence of oral care, a biofilm develops with harmful bacteria in the mouth & lungs.
  - This biofilm doubles every 2-3 hours
  - Teeth brushing is an essential element to prevent this
- Patients who develop NV-HAP have:
  - An increased risk of developing sepsis by 50%
  - A readmission rate as high as 20%
  - A mortality rate as high as 15-30%

PURPOSE

- To develop & implement an SMC standard for oral care of the adult non-ventilated patient, aimed at reducing rates of non ventilator-hospital acquired pneumonia (NV-HAP).

KEY IMPLEMENTATION COMPONENTS

- Educational poster at the Swedish Nursing Symposium
- Vendor in-services for new suction toothbrush kits
- Utilization of the RN Champion role to disseminate information (all campuses, all shifts)
- Collaboration with Speech Language Pathologists (SLPs) for clinical support and Materials Supply Chain (MSC) for supply availability
- Plan to include NAC Education Days (on hold due to COVID-19)

PROJECT DESCRIPTION

- **Phase 1 (Completed Sept. 2019):** Develop and publish the SMC standard for oral care of the adult, non-ventilated patient.
- **Phase 3 (Nov. 2019):** System-wide roll out (On all adult, in-patient units).
  
  * *Initiative paused due to COVID-19 outbreak** *
- **Phase 4 (Fall 2020):** Plan for Future Re-launch: Reinforcing organizational focus on oral care as a long-term initiative & emphasizing necessity of oral care during current pandemic.

RESULTS AND OUTCOMES

- **Baseline (Oct. 2019) system "teeth brushed" rate: 86%**

<table>
<thead>
<tr>
<th>Swedish System</th>
<th>Documented Oral Care - Teeth Brushing vs Other Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teeth Brushed</td>
<td>15,000</td>
</tr>
<tr>
<td>Other Care</td>
<td>12,000</td>
</tr>
<tr>
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</tr>
</tbody>
</table>

**Highlighted Campus Data: Issaquah**

- Baseline (Oct. 2019) system "teeth brushed" rate: 86%

LIMITATIONS

- The COVID-19 pandemic emerged in the middle of Phase 3 implementation, diverting focus, education, and clinical time away from initiative—likely explaining the plateau noted in our “Swedish System” graphical data display.
  - Of note, the Issaquah campus was the main COVID hospital in the Swedish System (out of 5 campuses)– and the only campus with a decrease in teeth brushing documentation. This supports the explanation of the extent COVID impacted clinical areas of focus.
  - Due to limited resources and pandemic priorities, there are outcome data related challenges hindering success (documentation compliance + NV-HAP rates).

FUTURE PLANS: RE-LAUNCH

- Collaborate with EPIC teams to refine oral care documentation template.
- Collaborate with Infection Prevention/Quality teams to create unified vision, goals, and plans.
- Augment current process to optimize sustainability
  - Seek collaborative efforts with Providence ministries.
  - Elevate engagement with patients and families.
  - Long term effort to partner with bedside caregivers & SLPs through education and safety forums.
- Maintain relationship with MSC to adapt to changes with oral care product availability & stocking.

References available upon request: sarah.mcafee@swedish.org

New suction toothbrush kits now stocked in all applicable unit supply rooms, providing bedside caregivers supplies they need to do the work.